



PTO/SB/96 (08-00)

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| STATEMENT UNDER 37 CFR 3.73(b)   |             |  |  |  |  |  |
|--|-------------|--|--|--|--|--|
| Applicant/Patent Owner: Agere Systems Guardian Corp.   |             |  |  |  |  |  |
| Application No./Patent No.: 09/390,389 Filed/Issue Date: September 3, 1999   |             |  |  |  |  |  |
| Entitled: Multiplier-Free Methods and Apparatus for Signal Processing in a Digital Communication System  |             |  |  |  |  |  |
| Agere Systems Guardian Corp. , a corporation  (Name of Assignee) (Type of Assignee, e.g., corporation, partnership, university, government as RECE states that it is:  1. It is assignee of the entire right, title, and interest; or  | ency, etc.) |  |  |  |  |  |
| states that it is:   | 2000        |  |  |  |  |  |
| 1. X the assignee of the entire right, title, and interest; or   | 2002        |  |  |  |  |  |
| <ol> <li>the assignee of the entire right, title, and interest; or</li> <li>an assignee of less than the entire right, title and interest.         The extent (by, percentage) of its ownership interest is</li></ol>  | nter 2600   |  |  |  |  |  |
| in the patent application/patent identified above by virtue of either:   |             |  |  |  |  |  |
| A.  An assignment from the inventor(s) of the patent application/patent identified above. The assignance was recorded in the United States Patent and Trademark Office at Reel, Frame which a copy thereof is attached.  |             |  |  |  |  |  |
| OR   |             |  |  |  |  |  |
| B. X A chain of title from the inventor(s), of the patent application/patent identified above, to the cu assignee as shown below:  | rrent       |  |  |  |  |  |
| 1. From: Inventor(s) To: Lucent Technologies Inc.  The document was recorded in the United States Patent and Trademark Office at Reel 010362 , Frame 0870 , or for which a copy thereof is attached  |             |  |  |  |  |  |
| From: Lucent Technologies Inc. To: Agere Systems Guardian Corp.  The document was recorded in the United States Patent and Trademark Office at Reel, or for which a copy thereof is attached.  |             |  |  |  |  |  |
|  | •           |  |  |  |  |  |
| 3. From:To:  |             |  |  |  |  |  |
| 3. From:   |             |  |  |  |  |  |
| The document was recorded in the United States Patent and Trademark Office at  |             |  |  |  |  |  |
| The document was recorded in the United States Patent and Trademark Office at Reel, Frame, or for which a copy thereof is attached   | <br>cument) |  |  |  |  |  |
| The document was recorded in the United States Patent and Trademark Office at Reel, Frame, or for which a copy thereof is attached.  Additional documents in the chain of title are listed on a supplemental sheet.  Copies of assignments or other documents in the chain of title are attached.  [NOTE: A separate copy (i.e., the original assignment document or a true copy of the original document be submitted to Assignment Division in accordance with 37 CFR Part 3, if the assignment is   | <br>cument) |  |  |  |  |  |
| The document was recorded in the United States Patent and Trademark Office at Reel, Frame, or for which a copy thereof is attached Additional documents in the chain of title are listed on a supplemental sheet.    Copies of assignments or other documents in the chain of title are attached.   NOTE: A separate copy (i.e., the original assignment document or a true copy of the original documents be submitted to Assignment Division in accordance with 37 CFR Part 3, if the assignment is recorded in the records of the USPTO. See MPEP 302.08  | <br>cument) |  |  |  |  |  |
| The document was recorded in the United States Patent and Trademark Office at Reel, Frame, or for which a copy thereof is attached.  Additional documents in the chain of title are listed on a supplemental sheet.  Copies of assignments or other documents in the chain of title are attached.  [NOTE: A separate copy (i.e., the original assignment document or a true copy of the original documents be submitted to Assignment Division in accordance with 37 CFR Part 3, if the assignment is recorded in the records of the USPTO. See MPEP 302.08]  The undersigned (whose title is supplied below) is authorized to act on behalf of the assignee.  | <br>cument) |  |  |  |  |  |
| The document was recorded in the United States Patent and Trademark Office at Reel, Frame, or for which a copy thereof is attached.  Additional documents in the chain of title are listed on a supplemental sheet.  Copies of assignments or other documents in the chain of title are attached.  [NOTE: A separate copy (i.e., the original assignment document or a true copy of the original documents be submitted to Assignment Division in accordance with 37 CFR Part 3, if the assignment is recorded in the records of the USPTO. See MPEP 302.08]  The undersigned (whose title is supplied below) is authorized to act on behalf of the assignee.  May 28, 2002  Joseph B. Ryan, Reg. No. 37,922 | cument)     |  |  |  |  |  |





**EXECUTION COPY** 

## **PATENT ASSIGNMENT**

by and between

LUCENT TECHNOLOGIES INC.

and

AGERE SYSTEMS GUARDIAN CORP.

Dated as of January 30, 2001

### PATENT ASSIGNMENT

THIS PATENT ASSIGNMENT (this "Assignment"), effective as of January 30, 2001 (the "Effective Date"), is by and between Lucent Technologies Inc., a Delaware corporation, with offices at 600 Mountain Avenue, Murray Hill, New Jersey 07974, United States of America, ("ASSIGNOR") and Agere Systems Guardian Corp., a Delaware corporation, with offices at 555 Union Boulevard, Allentown, PA 18109, United States of America ("Agere Systems Guardian").

#### RECITALS

- A. WHEREAS, the Board of Directors of ASSIGNOR has determined that it is in the best interests of ASSIGNOR and its stockholders to separate ASSIGNOR's existing businesses into two independent businesses;
- B. WHEREAS, ASSIGNOR presently owns or controls certain patents, patent applications, and invention submissions listed in the attached Appendices A and B (hereinafter "TRANSFERRED PATENTS") and;
- C. WHEREAS, in furtherance of the foregoing separation, ASSIGNOR desires to transfer, assign, convey, deliver and vest all of its interests and rights in TRANSFERRED PATENTS for all countries, jurisdictions and political entities of the world, to and in Agere Systems Guardian;

NOW, THEREFORE, in consideration of the premises and for other good and valid consideration, the receipt and sufficiency of which are hereby acknowledged, the parties, intending to be legally bound, agree as follows:

ASSIGNOR, subject to existing rights and licenses of third parties, does hereby assign, convey, transfer and deliver, and agrees to assign, convey, transfer and deliver to Agere Systems Guardian, its successors, assigns and legal representatives or nominees, ASSIGNOR's entire right, title and interest, for all countries, jurisdictions and political entities of the world, along with the right to sue for past infringement, to all TRANSFERRED PATENTS listed on Appendices A and B, and corresponding counterpart foreign patents and patent applications, with respect to which, and to the extent to which, ASSIGNOR now has or hereafter acquires the right to so assign, convey, transfer and deliver. Agere Systems Guardian recognizes that ASSIGNOR holds only bare legal title to the TRANSFERRED PATENTS listed in Appendix A (which lists the United States Patents and patent applications previously exclusively licensed to Lucent Technologies Microelectronics Guardian Corp.).

ASSIGNOR and ASSIGNEE recognize that the patents listed in Appendices A and B may inadvertently include patents that are owned by various subsidiaries of ASSIGNOR, including Agere, Inc., Ortel Corporation, Optimay Corporation, Herrmann Technology, Inc., and Enable Semiconductor, Inc. Ownership of such patents shall not be affected by this Patent

Assignment, and ASSIGNEE agrees that any such patents shall be deemed deleted from Appendices A and B.

ASSIGNOR agrees that, upon request it will, at any time without charge to Agere Systems Guardian, but at Agere Systems Guardian's expense, furnish all necessary documentation relating to or supporting chain of title, sign all papers, take all rightful oaths, and do all acts which may be necessary, desirable or convenient for vesting title to TRANSFERRED PATENTS in Agere Systems Guardian, its successors, assigns and legal representatives or nominees; including but not limited to any acts which may be necessary, desirable or convenient for claiming said rights and for securing and maintaining patents for said inventions in any and all countries and for vesting title thereto in Agere Systems Guardian and its respective successors, assigns and legal representatives or nominees.

IN WITNESS WHEREOF, the parties have caused this PATENT ASSIGNMENT to be executed by their duly authorized representatives as of the Effective Date.

LUCENT TECHNOLOGIES INC.

Daniel P. McCurdy

President, Intellectual Property Business

AGERE SYSTEMS GUARDIAN CORP.

Fred M. Romano

President

## **ACKNOWLEDGMENTS**

| STATE OF NEW JERSEY | ) |     |
|---------------------|---|-----|
|                     | : | ss: |
| COUNTY OF SOMERSET  | ) |     |

I CERTIFY that on \_ | Col x 2001, Daniel P. McCurdy personally came before me and this person acknowledged under oath, to my satisfaction that: a.) this person signed, sealed and delivered the attached Patent Assignment as President -

Intellectual Property Business of Lucent Technologies Inc.; and

b.) this Patent Assignment was signed and made by Lucent Technologies Inc. as its voluntary act and deed by virtue of authority from its Board of Directors.

Notary Public

TAMORA ANNE HANNA Notary Public of New Jersey My Commission Expiremistered in Hunterdon County My Commission Expires March 25, 2002

[Notarial Seal]

STATE OF FLORIDA)

SS:

COUNTY OF ORANGE)

I CERTIFY that on Tanuary 31, 2001, Fred M. Romano personally came before me and this person acknowledged under oath, to my satisfaction that:

- a.) this person signed, sealed and delivered the attached Patent Assignment as Vice President of Agere Systems Guardian Corp., and
- b.) this Patent Assignment was signed and made by Agere Systems Guardian Corp. as its voluntary act and deed by virtue of authority from its Board of Directors.

Notary Public

My Commission Expires:

[Notarial Seal]



# APPENDIX B (continued) Transferred Patents

| Case Name                        | Filing Date             | Issue Date | Patent No.             | Serial No.             |
|----------------------------------|-------------------------|------------|------------------------|------------------------|
| Lotfi 20-35                      | 10/6/1999               |            |                        | 09/413605              |
| Lotfi 22-2                       | 11/23/1999              |            |                        | 09/448856              |
| Lothian 8-24-2                   | 11/17/1997              |            | 08/971427              | 03/4/70000             |
| Lou 11-5-26                      | 2/16/1999               |            | 55/5/ 1,2/             | 09/250743              |
| Lou 13-13                        | 9/3/1999                |            |                        | 09/390389              |
| Lou 14-6                         | 9/3/1999                |            |                        | 09/390386              |
| Lou 4-23                         | 7/22/1997               |            | 08/898441              |                        |
| Lou 6-3-21                       | 12/2/1998               |            |                        | 09/203663              |
| Lau 8-7-23                       | 7/15/1999               |            |                        | 09/353669              |
| Lou 9-24                         | 8/11/1999               |            |                        | 09/372706              |
| Low 5                            | 11/5/1999               |            |                        | 09/434078              |
| Lui 1-7-2-1                      | 12/23/1997              |            | 08/ <del>99</del> 6594 |                        |
| Lui 2-8-1                        | 7/24/1997               | 6/6/2000   | 6072839                |                        |
| Lul 3-1-9                        | 9/24/1997               | 7/25/2000  | 08/936316              | 6094739                |
| Lukoff 1                         | 5/27/1999               |            |                        | 09/321002              |
| Lum 1-8-1                        | 9/19/1994               | 10/31/1995 | D363721                |                        |
| Luo 1-3<br>Luo 2                 | 9/16/1998               | 7/18/2000  | 09/154276              | 6091627                |
| Luo 4                            | 9/18/1998<br>11/9/1998  |            | 09/157276              | 001400044              |
| Luo 5                            | 11/3/1998               |            |                        | 09/188241              |
| Luo 8                            | 2/4/1999                |            |                        | 09/184742              |
| Luo 9-3                          | 12/17/1999              |            |                        | 09/244040              |
| Luther 13-14                     | 1/22/1999               |            |                        | 09/466054<br>09/235976 |
| Lytle 15-4-18                    | 12/3/1999               |            |                        | 09/454909              |
| Lytle 17-5-3-18-11-21-14         | 4/5/2000                |            |                        | 09/543370              |
| Lyde 18                          | 9/21/2000               |            | 09/867046              | 00/043370              |
| Lytte 9-8-4                      | 12/3/1999               |            | 05.00.040              | 09/454003              |
| Ma 10-4                          | 12/7/1999               |            |                        | 09/456839              |
| Ma 12-7-5                        | 7/28/2000               |            | 09/629707              |                        |
| Ma 14-40                         | 6/25/1997               |            | 08/881994              |                        |
| Ma 15-41                         | 9/5/1997                | 6/13/2000  | 6074933                |                        |
| Ma 19-28-2-44                    | 11/24/1997              |            | 08/977318              |                        |
| Ma 20                            | 11/20/1997              |            | 08/974987              |                        |
| Ma 25-55<br>Ma 26-58             | 10/1/1998               |            |                        | 09/164298              |
| Ma 28-4-13                       | 6/17/1999<br>1/15/1999  |            |                        | 09/334911              |
| Ma 3                             | 1/30/1998               |            | 00/016075              | 09/232752              |
| Ma 31-64                         | 6/16/1999               |            | 09/016275              | 00/224404              |
| Ma 3-28                          | 4/29/1996               |            | 08/641155              | 09/334491              |
| Ma 37-91                         | 4/5/1999                |            | 00/04/103              | 60/127757              |
| Ma 39-97                         | 6/17/1999               |            | •                      | 09/334977              |
| Ma 41-8                          | 8/16/1999               |            |                        | 09/375150              |
| Ma 50-143                        | 1/20/2000               |            |                        | 09/488321              |
| Ma 56                            | 7/25/2000               |            | 09/625129              | 00/450081              |
| Ma 57-12                         | 8/29/2000               |            | 09/849934              |                        |
| Ma 7-1                           | 8/26/1999               |            |                        | 09/383638              |
| Ma 9-3                           | 6/1/1999                |            | •                      | 09/322920              |
| Maerkie 1-50                     | 10/13/2000              |            | 09/687632              |                        |
| Manchanda 13-12-7                | 7/24/1997               |            | 08/899735              |                        |
| Manfra 1-17-13-45                | 7/29/1999               |            |                        | 09/363527              |
| Manfra 2-18-14-54<br>Marenco 1-1 | 12/23/1999<br>7/31/1997 |            | AB /AAA AA             | 09/472331              |
| Marshall 2-4                     | 8/19/1999               |            | 08/903588              | 00.00                  |
| Marszalek 1-8-77-2-23            | 6/5/1998                |            | 09/092380              | 09/377096              |
| Martin 13-9-6                    | 4/23/1999               |            | 04/084300              | 09/298792              |
| Martin 2                         | 3/31/1998               |            | 09/052074              | O\$145013 <b>Z</b>     |
| Martin 3-1                       | 11/17/1997              |            | 08/971430              |                        |
| Martin 4                         | 9/14/1998               | 3/21/2000  | 6040726                |                        |
| Martin 5                         | 12/13/1999              |            |                        | 09/460169              |
| Martinian 1-51                   | 11/7/2000               |            | 09/707686              | : <b>,</b>             |
|                                  |                         |            |                        |                        |